

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,818	12/18/2000	Takuya Homme	046124-5055	2027

9629 7590 07/28/2003

MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER

MORAN, TIMOTHY J

ART UNIT PAPER NUMBER

2878

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n N .

09/737,818

Examiner

Timothy J. Moran

Applicant(s)

HOMME ET AL.

Art Unit

2878

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period of Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 8-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-10, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 8-10, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchino, Japanese Publication No. 63-216000 in view of Aiba, Japanese Application S61-124574. Regarding claims 1-2, Tsuchino describes an organic film CVD deposition method comprising depositing an organic film (page 5, upper right section and lower left section) on all surfaces of a substrate (H3) provided with a scintillator (2, claim 1). Tsuchino does not describe details of the substrate positioning during the deposition process.

Art Unit: 2878

However, Aiba describes a vapor deposition method comprising the step of supporting a substrate on at least three protrusions of a target-support element. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the deposition method of Tsuchino for the advantage of depositing a uniform film over all surfaces of the object. Tsuchino does not describe the disposition of a substrate on a rotatable table and the introduction of said table into a CVD apparatus. However, the use of such rotatable tables is well known in the art of CVD deposition in order to produce uniform deposition rates. Therefore, it would have been obvious to one of ordinary skill in the art to use a rotatable table in such a way in the method of Tsuchino for the advantage of uniform deposition rates.

Regarding claim 3, Aiba teaches the use of a strand member in a target support element (fig. 1, page 2, line 26-page 3, line 5). Therefore it would have been obvious to one of ordinary skill in the art to utilize a strand member in the method of Tsuchino for advantage of depositing a uniform film over all surfaces of the object.

Regarding claim 8-9, the use of turntables and rotating tables is well known in the art of CVD deposition. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the deposition method of Tsuchino for the advantage of depositing a uniform film over all surfaces of the object.

Regarding claim 10, the use of organic layers comprising multiple films is well known in the art of CVD deposition, especially if the films have

Art Unit: 2878

complementary advantages. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the deposition method of Tsuchino for the advantage of optimizing film properties.

Regarding claim 13, the use of multiple substrates is well known in the art of CVD deposition. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the deposition method of Tsuchino for the advantage of high production rates.

Regarding claim 14, Tsuchino teaches the forming of a scintillator and an organic film on a substrate (see above).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchino and Aiba as applied to claim 1 above, and further in view of Laugier, U. S. Patent No. 6,429,437. Tsuchino does not teach the use of polyparaxylylene as an organic film deposited onto a scintillator structure. However, Laugier teaches that polyparaxylylene is useful as a protecting material when deposited onto a scintillator structure using CVD (abstract and col. 5, lines 43-59). Therefore it would have been obvious to one of ordinary skill in the art to utilize polyparaxylylene in the method of Tsuchino for the advantage of providing a protecting layer.

Claims 1-4, 8-10, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Homme, WO Publication No. 00/63722 in view of Aiba, Japanese Application S61-124574. Regarding claims 1-2, Homme describes an organic film CVD deposition method (page 5, lines 18-26) comprising depositing an organic film (fig. 1, film 18) on all surfaces of a substrate (10) provided with a

Art Unit: 2878

scintillator (16). Homme does not describe details of the substrate positioning during the deposition process. However, Aiba describes a vapor deposition method comprising the step of supporting a substrate on at least three protrusions of a target-support element. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the deposition method of Homme for the advantage of depositing a uniform film over all surfaces of the object. Homme does not describe the disposition of a substrate on a rotatable table and the introduction of said table into a CVD apparatus. However, the use of such rotatable tables is well known in the art of CVD deposition in order to produce uniform deposition rates. Therefore, it would have been obvious to one of ordinary skill in the art to use a rotatable table in such a way in the method of Homme for the advantage of uniform deposition rates.

Regarding claim 3, Aiba teaches the use of a strand member in a target support element (fig. 1, page 2, line 26-page 3, line 5). Therefore it would have been obvious to one of ordinary skill in the art to utilize a strand member in the method of Homme for advantage of depositing a uniform film over all surfaces of the object.

Regarding claim 4, Homme teaches the use of polyparaxylylene in the film (page 5, lines 18-26).

Regarding claim 8-9, the use of turntables and rotating tables is well known in the art of CVD deposition. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the

Art Unit: 2878

deposition method of Homme for the advantage of depositing a uniform film over all surfaces of the object.

Regarding claim 10, the use of organic layers comprising multiple films is well known in the art of CVD deposition, especially if the films have complementary advantages. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the deposition method of Homme for the advantage of optimizing film properties.

Regarding claim 13, the use of multiple substrates is well known in the art of CVD deposition. Therefore it would have been obvious to one of ordinary skill in the art to utilize the substrate support method of Aiba in the deposition method of Homme for the advantage of high production rates.

Regarding claim 14, Homme teaches the forming of a scintillator and an organic film on a substrate (see above).

### ***Response to Arguments***

Applicant's arguments filed June 18, 2003 have been fully considered but they are not persuasive.

In response to the applicant's argument (page 4, second paragraph, sentence ending with "vapor deposition table") it is acknowledged that the applied references do not disclose a rotatable vapor deposition table. However, it is considered that one of ordinary skill in the art would have knowledge of the use of rotatable vapor deposition tables.

### ***Allowable Subject Matter***



Art Unit: 2878

Claims 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 11 includes the limitations that the position of the support protrusions is shifted between the deposition of two films.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Moran whose telephone number is 703-305-0849. The examiner can normally be reached on M-F 8:30-5:00.

Art Unit: 2878

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TM  
July 22, 2003

  
DAVID PORTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800